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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/835,625 | 04/17/2001 | Kenichiro Sakai | 121.1012 | 7047 |

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EXAMINER

FRANKLIN, JAMARA ALZAIDA

ART UNIT PAPER NUMBER

2876

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/835,625

Applicant(s)

SAKAI ET AL.

Examiner

Jamara A. Franklin

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Acknowledgment is made of the amendment received on 3/08/05. Claims 1-20 are currently pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 9-14, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Chandler et al. (US 5,296,690) (hereinafter referred to as 'Chandler').

Chandler teaches an apparatus extracting two-dimensional code from an input document, comprising:

an image scanner scanning the document, and outputting input image (48) data; and

a programmed computer processor connected to said image scanner and controlling the apparatus according to a two-dimensional code extraction process, comprising:

scanning said input image data in a square block unit of MxN pixels (M and N are positive integers) (col. 6, lines 12-23),

detecting blocks (49) that satisfy specific conditions from said scanned blocks,

detecting one or more two-dimensional code regions corresponding to respective one or more two-dimensional codes, each two-dimensional code region comprising a number of

Art Unit: 2876

neighboring and contiguous blocks (49) from among said detected blocks that satisfy specific conditions from said scanned blocks (col. 8, lines 10-24), and

extracting the one or more two-dimensional codes from among the detected two-dimensional code regions that have more than a predetermined number of neighboring and continuous blocks (col. 9, lines 19-34);

wherein a block that includes a ratio of white pixels and black pixels that falls within a specific range is detected as a block (49) satisfying said specific conditions (col. 6, lines 12-23);

wherein a block that includes a ratio between transition points of pixels within horizontal lines or vertical lines of the block and a total number of pixels of the block that falls within a specific range is detected as a block satisfying said specific conditions (col. 7, lines 24-38 and col. 7, line 52- col. 8, line 3);

wherein a block in which variation of vertical or horizontal projection of black pixels included in each line in the block falls within a specific range is detected as a block satisfying said specific conditions (col. 6, lines 24-34);

the method further comprising:

detecting a two-dimensional code region comprising a maximum number of detected neighboring and contiguous blocks from among the detected two-dimensional code regions; and

the method further comprising:

detecting a two-dimensional code region comprising a maximum number of detected contiguous blocks (49) from among the detected two-dimensional code regions.

Allowable Subject Matter

3. Claims 6-8 and 15-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 6 and 15, the prior art of record fails to teach, or fairly suggest either alone or in combination thereof, the method of extracting a square area including the detected position as the two-dimensional code region. No motivation has been found to combine a reference teaching the aforementioned element to arrive at the claimed invention;

Regarding claims 7 and 16, the prior art of record fails to teach, or fairly suggest either alone or in combination thereof, the method of calculating average distance between pairs of black pixels within the scanned blocks and extracting a scanned block as a detected block satisfying the specific conditions, when a determination is made that the calculated average distance exceeds a predetermined value. No motivation has been found to combine a reference teaching the aforementioned element to arrive at the claimed invention; and

Regarding claims 8 and 17, the prior art of record fails to teach, or fairly suggest either alone or in combination thereof, the method of determine an angle of inclination of a detected two-dimensional code region; and correcting the angle of inclination, if the angle of inclination exceeds a specific value. No motivation has been found to combine a reference teaching the aforementioned element to arrive at the claimed invention.

Response to Arguments

5. Applicant's arguments filed 3/08/05 have been fully considered but they are not persuasive.

In response to the argument that the Chandler fails to teach the extraction of multiple two-dimensional codes from an image by determining multiple regions of detected neighboring and continuous blocks, the examiner submits that the claim language (i.e. detecting one or more two-dimensional code regions corresponding to respective one or more two dimensional codes) provides an alternative to the multiple regions discussed in the arguments, in that, multiple regions corresponding to multiple codes may be detected or one region corresponding to one code may be detected. Chandler teaches that one region corresponding to one code is detected.

In response to the argument that Chandler uses a region growing technique to locate a region of bar code activity from the computed location scores and does not teach “detecting...each two-dimensional code region comprising a number of neighboring and continuous blocks from among said detected blocks that satisfy specific conditions from said scanned block”, the examiner submits that the region growing technique reads upon the claimed aforementioned limitation in that the region of the region growing technique is derived from detected cells 49 (blocks) that have a particular cell score (satisfy specific conditions).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2876

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamara A. Franklin whose telephone number is (571) 272-2389. The examiner can normally be reached on Monday through Friday 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2876

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jamar A. Franklin

Examiner

Art Unit 2876

JAF

April 7, 2005



DIANE I. LEE
PRIMARY EXAMINER